Vanasse Hangen Brustlin, Inc.

Transportation
Land Development
Environmental Services

Kilton Road
Six Bedford Farms, Suite 607
Bedford, New Hampshire 03110-6532
603 644-0888
FAX 603 644-2385

Meeting Notes

Attendees: See Attached List

Date/Time: November 21, 2001 1:00 PM

Project No.: 50885

Place: NHDOT Design Conference Room

Re: Resource Agency Meeting
I-93 Salem to Manchester
Wetlands and Alternatives Matrix
Discussion

Notes taken by: Bruce A. Tasker

Charlie Hood opened the meeting explaining that today's meeting would include presentations related to design elements, wetland resources, and wetland mitigation areas as well as a presentation by Mark Kern.

Jeff introduced the VHB/ENSR project team members. He noted that the Department is in the process of putting together the Draft EIS. One element of the DEIS being developed is a matrix that quantifies how each alternative impacts the environmental resources and socio-economic constraints. The matrix (copies provided to all in attendance) provides a quick summary to compare one alternative against another. The matrix was first discussed at the last Resource Agency meeting in Derry and has been refined and will continue to be refined until the DEIS is published.

Jeff also mentioned that the Department is formulating its preferred alternative based on all of the information and input collected to date.

Tony Grande Presentation:

Tony Grande noted there are two different matrices, one for the three-lane alternative and one for the four-lane alternative. Each matrix is divided into segments A through F. Tony Grande explained that the Summary of Impacts matrix has been revised to include information relative the quality (new data) of the wetlands impacted in addition to the quantity of impacts. Tony noted that the matrix is still preliminary and subject to change.

Tony also described a 400-scale plan showing the entire project limits beginning at the MA/NH state line and proceeding north to the I-93/I-293 split in Manchester. The 400-scale plan depicts a 4-lane option, but a 3-lane option is also available. Tony provided an overview of the proposed improvements and noted the Department's preference in the areas where there are options. He noted that the Department prefers the four-lane widening alternative from the State line to the I-93/I-293 split in Manchester.

Proceeding from South to North:

Starting at the southern end of the project, the first segment is south of Cross Street. There is only one option within this segment. The design is similar for the three-lane alternative or the four-lane alternative through this segment. Both layouts include a collector-distributor road in this area to handle northbound traffic through the rest area and for Exit 1.

Tony briefly presented the various interchange and mainline options for the entire project noting the Department's preferred option (italics):

- Exit 1, two interchange options: rehabilitate existing interchange ramps with substandard geometry; or reconstruct the ramps to improve geometry. *The Department prefers the reconstruct option.*
- Exit 2, two interchange reconstruction options: diamond type interchange configuration NB& SB with a tighter interchange footprint; or diamond type configuration NB and loop configuration for the SB ramps. *The Department prefers the diamond NB & SB configuration.*
- Exit 3, two mainline options (NB Shift or Tight Shift) with a number of interchange configurations in combination with either an on-line or an off-line option for NH 111(potentially nine choices). *The Department prefers the Tight Shift option with a diamond interchange configured to the NH 111 off-line option (option 8).*
- Exit 4, two mainline options with a southerly relocation of NH 102 and NB diamond interchange configuration: an easterly I-93 widening option that retains the existing SB ramps; or westerly widening option, which requires reconstruction of the SB ramps and impacts the park and ride facility. *The Department prefers the easterly widening option.*
- Exit 5, three interchange configuration options with the improved SB ramps configured similarly: a diamond interchange configuration with NH 28 on-line; a diamond interchange configuration with NH 28 off-line to the east of I-93; or a diamond interchange configuration SB with NB interchange ramps realigned opposite Liberty Drive. *The Department prefers the diamond interchange configured with NH 28 on-line.*

In addition, three new Park and Ride facilities are being proposed as part of the I-93 corridor improvements with facilities planned at Exits 2, 3 and 5 (two options).

Tony noted that space for a potential future rail corridor is also being considered as part of this project. The rail line would begin in Massachusetts, either connected to the existing Manchester to Lawrence rail line or perhaps connected to a new line that would follow I-93 in MA to the Woburn Transportation Center. Space for a rail corridor would be reserved in NH for either option. In NH, the rail line begins along the west side of I-93 at the MA / NH state line and continues northerly until just north of Exit 1 where the rail line would cross into the median and continue inside the median, through Exit 5. North of Exit 5, the line would then be connected to the existing Manchester to Lawrence Branch to the west of I-93. This would provide the potential for a future connection to the Manchester Airport or downtown Manchester.

Bike Trail

A bike trail is also shown in a very conceptual format along the I-93 corridor. The bike trail would begin at the Exit 2 park & ride lot and fit into the highway construction running northerly to the Exit 5 park & ride lot area. Potential connectivity to local roads, park and ride lots, and the regional bike network is being considered. Through the Exit 4 area, the path would continue to parallel the eastern edge of the NB barrel up to Fordway Lane and then cross over to parallel the

western edge of the SB barrel. The trail would continue north and cross NH 102, have access to the park & ride lot and continue north along the SB barrel. At Pillsbury Road, depending on the east or west widening, the trail would be placed on the same side where the widening will take place.

Sound Walls

Tony noted that sound wall are proposed at various locations through out the corridor. At this time the Department is fine tuning the final locations.

Bud Titlow (ENSR) Presentation:

Bud introduced Julia Stearns, wetland scientist, with ENSR who is responsible for much of the wetland field delineation and evaluation. Bud discussed what was depicted on the matrix, the corridor map, and the preliminary wetland impact analysis handouts. He explained that there are 31 separate wetland systems identified by the letter designations of A, B, C …The wetlands are color-coded to show the quality and types of wetland systems. The color-coding used highway methodology sheets that were prepared for each system (these sheets are available for review). Both actual vernal pools and potential vernal pools are also identified on the map.

In May of this year (prime breeding nesting season) ENSR also completed a corridor-wide wildlife habitat resource assessment inventory.

Bud noted that an impact summary data table was prepared and translated to an user-friendlier bar chart for ease of evaluation of the impacts of each alternative for each corridor segment. The bar graph shows the quantity and quality of the wetland impacted. Total wetland impacts range from 56 acres (for 3-lane widening) to 74 acres (for 4-lane widening). The final analysis is not complete at this time but this information gives a sense of the quality or quantity of the impacts.

Bill Barry Presentation:

Bill Barry provided two handouts: a potential mitigation site location map and a data base inventory of those sites. Bill explained that the process has begun to identify possible wetland mitigation sites to offset impacts resulting from the project improvements. Bill noted that the total number of wetlands impacted for the project from Salem to Manchester is in the range of 55 to 75 acres. The mitigation is essentially made up of four types:

- Wetland restoration, which in effect restores previously, filled wetlands.
- Enhanced wetlands, by planting different plants or by changing the hydrology of the existing wetlands.
- Wetland creation, which creates wetlands out of upland or dry land area.
- Preservation, which includes preserving existing wetland and adjacent uplands.

Bill noted that flood plain compensation, especially in the Salem area, is a big issue and potential sites were broken out that would not only serve as wetland mitigation but also serve as flood plain mitigation. These sites are generally creation type locations.

Bill described the flooding situation in Salem using a USGS map that depicts the limits of the Spicket River Watershed, a profile plan of the Spicket River, and a 400-scale plan of the I-93 corridor with highlighted areas denoting the flood impacts and the potential mitigation sites. Bill noted that the Spicket River watershed is approximately 75 square miles. The Spicket River itself flows from the Arlington Mills Reservoir down through the Town of Salem into the Merrimack River in Lawrence,

Massachusetts. There is a natural divide in the Spicket River watershed that splits the watershed north of Salem. The majority of the watershed for the Spicket River is not influenced by the I-93 corridor, and only in the south Salem area does the I-93 corridor come in contact with the Spicket River. I-93's influence is via smaller tributaries that reach the Spicket River in the southern end of Salem.

The Windham / Derry town line is approximately the northern limit of the Spicket River watershed with respect to the I-93 corridor. The I-93 corridor between Exit 3 and North Lowell Road is actually west of the watershed, and as such, Cobbetts Pond is actually outside of the Spicket River Watershed. I-93 south of Exit 3, and the area south of Canobie Lake, Porcupine Brook and Policy Brook are all within the Spicket River Watershed.

Bill explained that the intent of the flood study is to provide an overview of what the highway impacts might be to the watershed area and, more importantly, what those affects might have on the flooding problems that are now occurring in Salem. One concern is the potential loss of natural valley storage in the uplands of the Spicket River watershed, and the other is the impact to the designated 100-yr. flood plains. Places that looked like valley storage areas (i.e. low lying areas where flood storage could occur) that are impacted by the highway improvements were identified, as well as adjacent areas that might be excavated to mitigate these upland flood storage impacts.
The same process was done for the 100-yr. floodplains impacted. The flood storage and flood plain compensation could also offset wetland impacts. We are looking at trying to mitigate any of the impacts affecting flooding at a greater than 1:1 ratio, to not exacerbate the existing flooding situation.

Bill then described a handout identifying 40 potential mitigation sites of which perhaps a few will be selected to provide compensatory mitigation for the project. Two sites of the 40 are already included in the Department's advanced mitigation areas. Bill noted that we are meeting with the corridor communities to get their input, and preservation seems to be a big favorite of the communities. For example, in Manchester there are two preservation sites that the community feels would provide some wetland mitigation, but more desirably provide recreation opportunities. Bill described the various sites that are under consideration in each of the five communities. The property owners have not been notified that we are considering their property at this time, but we are trying to evaluate which sites are the best, then contact the owners and visit the site with the Resource Agencies.

Mark Kern Presentation:

Mark Kern explained that the EPA's major concern involves secondary impacts. Mark explained that the EPA feels that the long-term impacts that will occur as a result of this project are of greater concern than the impacts to the 50 to 70 acres of wetlands, vernal pools, and the wildlife habitat, etc. that have been identified in the corridor. These are important he noted, but they can be addressed. The areas of concern to the EPA are not located in the highly developed areas along I-93 but in areas outside the corridor that will feel development pressure in the future. The DEIS is using the DELPHI process to assess secondary impacts and the EPA is conducting a study so that the secondary impacts the expert panel forecasts can be appropriately mitigated. The areas that have been identified as part of EPA's preliminary evaluation are large blocks of land (500 to 1000-acre lots) made up of multiple individual parcels that are largely undeveloped and which generally provide continuity of natural environmental systems and wildlife habitat. The list was identified based on three methods.

- Professional "Picks": based on discussions with a dozen or so resource groups (i.e. Nature Conservancy, etc.) that are familiar with quality land areas that could be preserved from development.

- Overlay methodology: areas that have high co-occurrences of information that was available from the GIS information database.
- Local Input: discussions with the local Towns to give insight as to what is important in the communities.

Interestingly the Professional "Picks" and the overlay methodologies resulted in similar sites, and seemingly provided the best methodology for locating potential sites.

Fay Rueben and Laura Demming Presentation:

Fay Rueben described the GIS analysis process. The study area is the same as the DELPHI study-area (29 communities). Seven sets of factors were identified as important data sets to consider (using the available GIS data) when developing the natural resource co-occurrence model. The GIS layers for the landscape analysis included:

- Permanent Conservation Lands w/500' buffer.
- Surface water w/100' buffer
- Large wetlands (NWI) 10 acres or greater w/100' buffer
- Un-fragmented tracts, isolated natural land tracts that do not contain roadways and are 500 acres or greater.
- Forest matrix block (Nature Conservancy data base)
- Wildlife, i.e. reptile, amphibian (NH Fish & Game) and bird data (Audubon). Note: the wildlife data available for the study area was somewhat incomplete.
- Potential Vernal pools were identified by using the available habitat data which suggested a logical site for a vernal pool

Fay presented the various overlay sheets. By overlaying all of the GIS layers together, only five layers actually had co-occurrence. Those locations that showed a co-occurrence would be the areas that may be of greatest importance in protecting from development.

Fay Rueben and Mark Kern presented the Professional Pick data overlays, for example, the large white cedar swamp in Manchester that is locally rare. Technical descriptions are available as to why the professionals chose a particular site. There were 22 professional pick sites.

General Discussion:

1. Mark Kern explained that the Town Officials were contacted to discuss the EPA's study and sites of interest locally. The Town's are not yet aware of EPA's findings.

2. In response to questions as to what the Department proposed to do with the data collected by the EPA, Jeff Brillhart explained that EPA's study is impressive and potentially helpful. The information may be particularly helpful for those Towns outside the direct influence of I-93, but which might be looking to catalogue resources within their boundaries in an effort to better plan their future growth. With that said, the magnitude of EPA's plan appears to be very ambitious and beyond what might reasonably be expected as an outgrowth of widening I-93. Jeff explained that it is still unclear what the magnitude of the secondary impacts are, and FHWA has indicated in the past that such impacts are not subject to mitigation.

   Jeff also explained that purchasing such large tracts of land, if it was done by the Department utilizing eminent domain process, requires the land areas be identified by parcel, owners be

notified, and a public hearing held. The general information needs to be made more specific for this to happen.

[Following the meeting Mark Kern explained that the EPA does not envision purchasing these properties through the eminent domain process utilizing Department personnel. Instead it would be his suggestion that an agreed to amount of money be allocated toward addressing secondary impacts. The money would be made available to some entity (such as the LCIP land trust that would contact property owners on an individual basis and negotiate settlements with those willing to protect areas of most concern. Mark felt that such a process would be the most amicable, cheapest, flexible and productive relative to protecting these areas from future development.**]**

3. Marc Laurin explained that the Department would like to get a sense from the Resource Agencies as to how they feel about the mitigation areas proposed for offsetting direct impacts. He proposed a field visit to the highest priority sites. He noted the advanced Salem mitigation site is complete and should be reviewed to see how well that site was developed. The other advanced mitigation site in Londonderry is a creation and preservation site and it will be constructed in spring of 2003. Marc noted that he will set up a field trip in the next couple of weeks.

4. Regarding the Department options for the preferred alternative, several comments were received as follows:

Bill Neidermeyer:	From US Fish and Wildlife Service's perspective, what the Department wants to construct in terms of three lanes versus four lanes or this interchange option or another will not be a problem. The Department should go forward with its preferred design, and the impacts associated with that design will be mitigated.
Mark Kern:	The EPA has the same perspective as the USFWS. The direct impacts can be addressed.
Ken Kettenring:	NHDES is also in agreement. The project has substantial impacts, but the details do not make that much of a difference. However, Prime wetlands need to be avoided and options that avoid Prime wetlands should be pursued. Otherwise the Department's preferences are acceptable.